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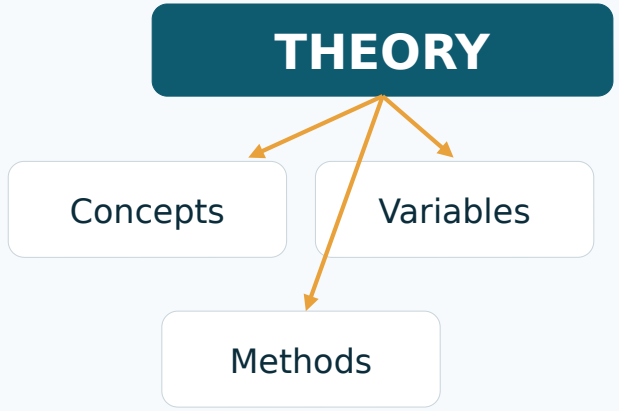
Lecture Slides

Theoretical Framework in Research

A student-friendly guide to selecting, explaining, and applying theory in academic studies.



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Lecture Overview

What this lecture covers

The meaning, purpose, types, development process, examples, advantages, limitations, and ethical issues related to theoretical frameworks.

How we will learn it

We move from basic definitions to practical steps, then apply the concept through examples, a full research scenario, activities, and knowledge checks.

By the end, students should be able to connect theory to research questions, variables, methods, analysis, and interpretation.

Learning Objectives

Define theoretical framework and related terms using clear academic language.
Explain why theory is important in research design and interpretation.
Distinguish between theoretical framework, conceptual framework, literature review, and research model.
Select an appropriate theory based on a research problem and research questions.
Map key constructs, variables, propositions, and expected relationships.
Apply a theoretical framework to guide methods, analysis, and discussion of findings.

Measurable outcome

Students can evaluate whether a framework is relevant, coherent, and ethically used in a real study.

Action verbs: define • explain • distinguish • select • map • apply • evaluate

Introduction: What Is a Theoretical Framework?

A theoretical framework is the set of established theories, concepts, and relationships that explains the lens through which a researcher studies a problem.

Why it matters

It tells readers why the research problem exists, what concepts are important, how variables may relate, and how findings should be interpreted.

How it is used

It guides the literature review, research questions, hypotheses, data collection, analysis, and discussion.

Simple idea: theory helps researchers move from “what is happening?” to “why might it be happening?”

Key Definitions

Term	Student-friendly meaning	Research use
Theory	A structured explanation of a phenomenon.	Explains why relationships or behaviors may occur.
Construct	An abstract idea that cannot always be directly observed.	Examples: motivation, stress, trust, self-efficacy.
Variable	A measurable form of a construct.	Examples: test score, income level, attendance.
Proposition	A theoretical statement about how concepts relate.	Can become research questions or hypotheses.
Framework	An organized structure that connects theory to the study.	Guides design, analysis, and interpretation.

Background and Academic Context

Theoretical frameworks are common in theses, dissertations, journal articles, and funded research proposals.
They are especially important when a study investigates complex social, behavioral, organizational, educational, health, or technological phenomena.
In quantitative studies, theory often informs hypotheses and variable relationships.
In qualitative studies, theory may guide the lens, concepts, sampling, questioning, coding, or interpretation.
In mixed methods studies, theory can connect qualitative and quantitative strands into one coherent design.

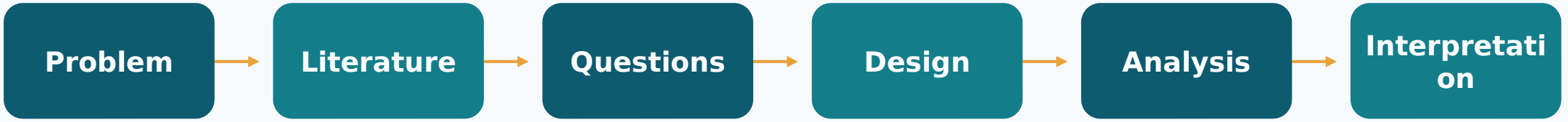
Historical idea

Academic research developed around the need to explain, predict, interpret, and sometimes challenge existing knowledge. Theory is one way researchers connect individual studies to larger scholarly conversations.

Instructor note

A weak framework often leads to scattered questions, unclear variables, and findings that are difficult to interpret.

Role of Theory in the Research Process



Theory should create alignment across the study—not appear only in one chapter.

Alignment means the research problem, purpose, questions, methods, analysis, and interpretation all fit together logically.

Main Concepts: Theory, Constructs, and Variables

Theory

A theory explains patterns. Example: Social Cognitive Theory explains how personal, behavioral, and environmental factors interact.

Constructs

Constructs are abstract building blocks. Examples include self-efficacy, organizational culture, anxiety, and perceived usefulness.

Variables

Variables are measurable indicators. Example: self-efficacy may be measured using a validated survey scale.

Theory explains

Constructs are operationalized as

Example chain: Social Cognitive Theory → Self-efficacy → Survey score measuring confidence in learning a new skill.

Main Concepts: Assumptions, Propositions, Boundaries

Assumptions

Beliefs the theory accepts as starting points. Example: people learn partly by observing others.

Propositions

Statements about how concepts are expected to relate. Example: higher perceived support may increase motivation.

Boundaries

Limits showing where the theory fits best. Example: a theory developed for classroom learning may not fully explain workplace safety.

A strong theoretical framework states not only what the theory explains, but also what it does not explain.

Assumptions help readers understand the lens of the study.
Propositions help form research questions or hypotheses.
Boundaries prevent overclaiming and keep interpretation realistic.

Types and Classifications of Theoretical Frameworks

Theories can be classified by level of abstraction, disciplinary origin, and number of theories used.

Level of abstraction

Grand / macro, middle-range, applied or practice theories

Disciplinary origin

Psychological, sociological, organizational, educational, health, information systems theories

Framework structure

Single-theory, multi-theory, integrative, or adapted framework

Research purpose

Explanatory, predictive, interpretive, critical, design-oriented

Type 1: Grand or Macro Theories

Grand theories explain broad patterns across society, human behavior, organizations, or systems. They are powerful but often need narrowing for empirical research.

High level of abstraction and wide scope.
Useful for framing broad social, cultural, institutional, or historical problems.
May be difficult to directly test without clear constructs and indicators.
Often combined with middle-range or applied theories for practical research.

Example use

A study on inequality in higher education may use social reproduction theory to explain how family, school, and social structures shape student opportunities.

Type 2: Middle-Range Theories

Middle-range theories focus on a specific phenomenon, population, setting, or relationship. They are often easier to apply in theses and dissertations.

Characteristics

Moderate scope, clearly defined constructs, and stronger links to measurable variables or qualitative themes.

Research value

Helps researchers explain a focused research problem without becoming too abstract or too narrow.

Example

Technology Acceptance Model can frame a study on students' intention to use an e-learning platform.

Good fit for many applied fields.
Can support hypotheses, interview guides, survey instruments, and coding categories.

Type 3: Applied or Practice Theories

Applied theories are designed for real-world problems in specific professional fields such as education, healthcare, management, information systems, and public policy.

Education | Health | Business | IT | Policy

Applied frameworks often connect scholarly theory with practical improvement, intervention design, program evaluation, or professional decision-making.

Example

A nursing study may use a patient self-management theory to explain how education and support influence medication adherence.

Single-Theory vs Multi-Theory Frameworks

Approach	Best used when…	Risk to manage
Single-theory framework	One theory strongly explains the research problem and constructs.	May oversimplify a complex issue.
Multi-theory framework	No single theory explains all important dimensions.	May become unfocused or contradictory.
Adapted framework	Existing theory is modified for a specific context.	Needs clear justification and transparency.
Integrative framework	Elements of several theories are carefully combined.	Requires clear logic and careful boundaries.

Rule of thumb: choose the simplest framework that explains the research problem well enough.

Theoretical Framework vs Conceptual Framework

Feature	Theoretical Framework	Conceptual Framework
Main basis	Established theory or theories.	Researcher’s organized map of concepts and relationships.
Typical logic	Often deductive: theory guides the study.	Often integrative or inductive: concepts are synthesized for the study.
Main question	Which theory explains the problem?	How do the key concepts fit together in this study?
Use in writing	Explains theoretical lens and assumptions.	Shows the study’s working model or concept map.

Important: Some disciplines use the terms differently. Always follow your university, journal, or supervisor’s guidance.

Step-by-Step Process for Building a Theoretical Framework

The process is iterative: researchers often revise the framework after deeper reading, feedback, pilot testing, or early analysis.

Step 1: Clarify the Research Problem and Questions

Write the research problem in one clear paragraph.
Identify the key phenomenon, population, setting, and context.
Underline the central constructs or variables in the problem statement.
Ask: What theory could explain why this problem occurs?
Check whether the research questions logically require theoretical explanation.

Example

Problem: Many first-year university students use e-learning platforms inconsistently. Possible constructs: perceived usefulness, self-efficacy, social support, technology anxiety.

Output of Step 1: a short list of concepts that the framework must explain.

Step 2–3: Review, Compare, and Select Theories

Review theory-rich literature

Read books, review articles, seminal studies, and recent empirical studies in your field.

Compare candidate theories

Ask which theory explains the problem, fits the context, and connects to your research questions.

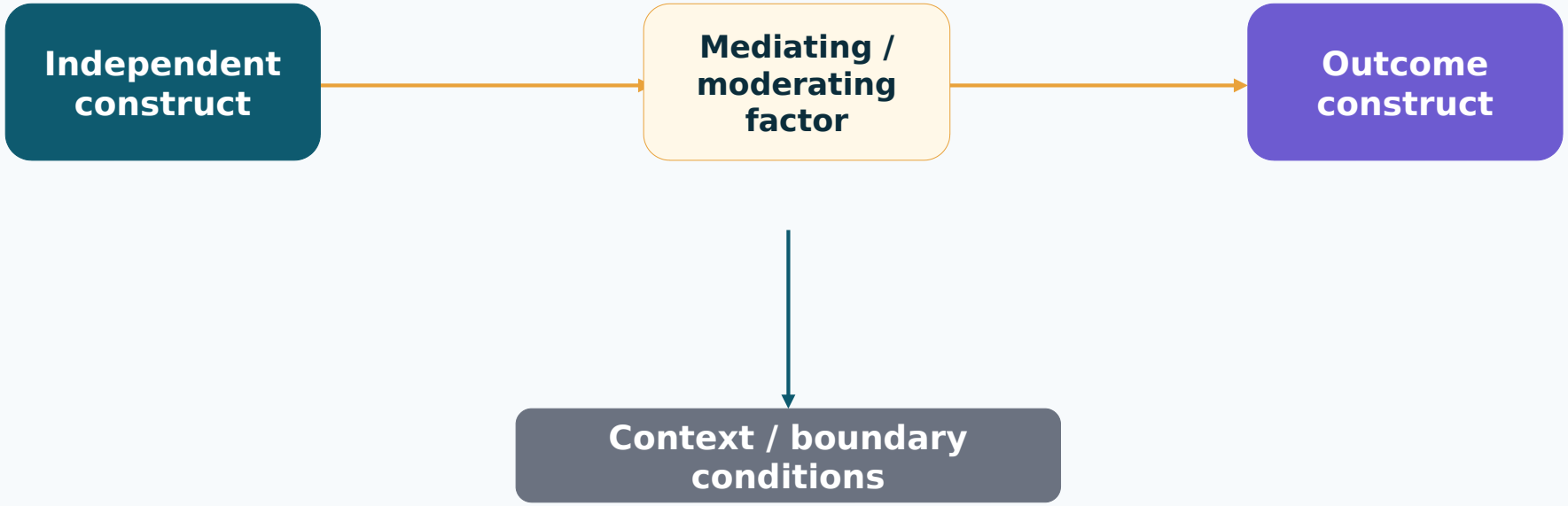
Select and justify

Choose the theory or theories and explain why they are appropriate for the study.

Selection criterion	Guiding question
Relevance	Does the theory directly address the phenomenon?
Fit	Does it fit the population, culture, setting, and discipline?
Usefulness	Can it guide variables, methods, analysis, or interpretation?
Credibility	Is the theory recognized and supported in scholarly literature?

Step 4: Map Constructs and Relationships

Mapping turns abstract theory into a clear research structure.



Name each construct.
State expected relationships.
Indicate direction where appropriate.
Show boundaries and context.

Step 5–6: Align Methods, Analysis, and Writing

Framework decision	Methodological implication
Constructs	Suggest variables, survey scales, interview topics, or coding categories.
Propositions	Suggest hypotheses, research questions, or analytic comparisons.
Theory boundaries	Suggest sampling limits, inclusion criteria, and cautious interpretation.
Theoretical lens	Suggest how findings are discussed and linked to existing knowledge.

Writing pattern

Introduce theory → define constructs → justify fit → map relationships → connect to methods → use theory in interpretation.

Practical Examples Across Academic Disciplines

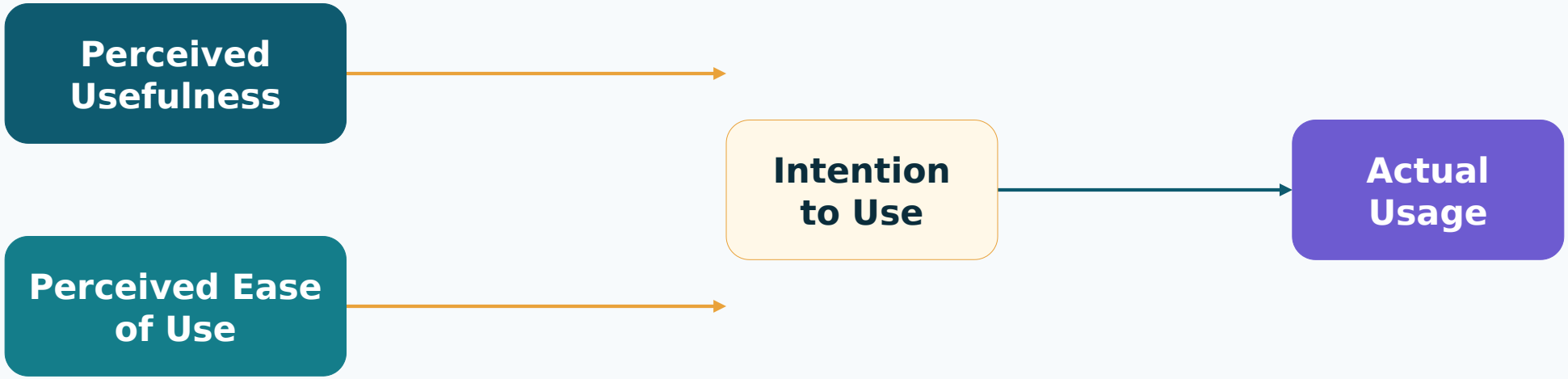
Discipline	Possible research topic	Possible theory/framework
Social sciences	Community participation in local governance	Social capital theory
Business & management	Employee engagement and job performance	Self-determination theory or social exchange theory
Education	Student motivation in online learning	Social cognitive theory
Health sciences	Patient adherence to treatment plans	Health belief model
Psychology	Stress and coping among university students	Transactional model of stress and coping
Information technology	Adoption of a mobile learning app	Technology Acceptance Model

Detailed Research Scenario: Applying a Framework

Element	Scenario detail
Research topic	Factors influencing students’ intention to use an e-learning platform.
Research problem	Students have access to the platform, but many use it inconsistently.
Research question	How do perceived usefulness and perceived ease of use influence students’ intention to use the platform?
Theoretical framework	Technology Acceptance Model: perceived usefulness and perceived ease of use influence intention to use technology.
Participants	Undergraduate students enrolled in blended-learning courses.
Data collection	Structured survey using Likert-scale items.
Data analysis	Correlation and regression analysis to test relationships among variables.
Expected interpretation	If usefulness and ease of use predict intention, the findings support the theory in this context.

Research Scenario: Framework Diagram

Example theoretical model based on the Technology Acceptance Model



The diagram becomes useful only when each box is defined and each arrow is justified using literature.

Advantages of a Strong Theoretical Framework

Clarity

Defines the lens and key ideas of the study.

Alignment

Connects problem, questions, methods, and analysis.

Credibility

Shows the study is grounded in scholarly knowledge.

Interpretation

Helps explain what findings mean and why they matter.

Contribution

Shows how the study supports, extends, or challenges theory.

Focus

Prevents the study from becoming too broad or scattered.

Limitations and Challenges

A theory may not fully fit a new culture, population, time period, or discipline.
Overly broad theories can be difficult to operationalize in empirical research.
Using too many theories can make the study unfocused or internally inconsistent.
Some theories carry assumptions or biases that should be acknowledged.
A framework can limit attention to unexpected findings if used too rigidly.
Students may struggle to distinguish theory from background literature.

Balanced view

A theoretical framework is a guide—not a cage. It should support systematic thinking while leaving room for evidence and context.

Common Mistakes Students Make

Mistake	Why it weakens the study	Better practice
Naming a theory without explaining it	Readers cannot see how the theory guides the study.	Define key constructs and relationships.
Choosing a popular theory only	Popularity does not prove fit.	Justify relevance to problem and context.
Adding too many theories	Creates confusion and weak alignment.	Use only theories with clear roles.
Ignoring the framework later	The framework becomes decorative.	Return to it in methods, analysis, and discussion.
Overclaiming	Findings may not support broad theoretical claims.	State boundaries and limitations.

Best Practices for Using a Theoretical Framework

Begin with the research problem, not with a favorite theory.
Use credible academic sources to understand the theory accurately.
Define every major construct in your own study context.
Explain why the selected theory is suitable and what its limits are.
Create a simple diagram when relationships are important.
Align research questions, hypotheses, instruments, coding, analysis, and discussion with the framework.
Be transparent when adapting or combining theories.

Quick quality test

Can a reader explain why your study is designed this way after reading your framework section?

If yes: strong alignment

If no: revise framework

Comparison Table: Related Research Components

Component	Main purpose	Typical content	Common error
Theoretical framework	Explains the study using established theory.	Theory, constructs, assumptions, propositions.	Treating it as a short definition only.
Conceptual framework	Maps the study’s key concepts and relationships.	Concept map, variables, context, expected links.	Confusing it with literature summary.
Literature review	Synthesizes previous research.	Themes, debates, gaps, evidence.	Listing studies without synthesis.
Research model	Visualizes variables and paths.	Boxes, arrows, hypotheses.	Showing arrows without justification.

Ethical Considerations

Avoid theoretical bias

Do not force data to fit the theory. Report findings that support, challenge, or extend the framework.

Respect context and culture

A theory developed in one setting may not apply equally in another. Explain context and limitations carefully.

Use sources honestly

Cite the original theory and key studies accurately. Do not misrepresent authors or invent support.

Keep participants' privacy, consent, and confidentiality separate from theoretical assumptions.
Do not use theory to stereotype groups or justify discriminatory interpretations.
Be transparent about researcher positionality when the framework reflects a particular worldview.
Report limitations when theory only partially explains the findings.

Classroom Activity: Build a Mini Framework

Activity objective

Students practice connecting a research problem to theory, constructs, and expected relationships.

Instructions

In pairs, choose one research topic. Identify the problem, two constructs, one possible theory, and one expected relationship. Draw a simple framework diagram.

Expected outcome

A one-page mini framework with a short explanation of why the theory fits the research problem.

Prompt option	Example focus
Education	Why do students avoid online discussion forums?
Business	Why do employees resist a new HR system?
Health	Why do patients delay preventive screening?
IT	Why do users abandon a mobile app after installation?

Classroom Discussion Questions

Why is a theoretical framework important in academic research?
How can a researcher know whether a theory fits a research problem?
What happens when a study uses a theory but does not return to it in the discussion?
Can a qualitative study use a theoretical framework? How?
When is it appropriate to combine more than one theory?
How can theory create bias in data interpretation?
What is the difference between a framework diagram and a theoretical explanation?

Knowledge Check

1. What is the main purpose of a theoretical framework?
2. Name two elements commonly included in a theoretical framework.
3. Multiple choice: A construct is best described as: A) a reference list B) an abstract concept C) a sample size D) a data file
4. How does a theoretical framework guide data analysis or interpretation?
5. What is one difference between theoretical and conceptual frameworks?
6. Give one example of a theory that could guide research in education, health, business, psychology, or IT.
7. Why should researchers avoid using too many theories?
8. True or false: A theoretical framework should be mentioned only in the introduction.

Answer Key

1. To explain and guide the study using established theory.
2. Examples: theory, constructs, variables, assumptions, propositions, relationships, boundaries.
3. B) an abstract concept.
4. It suggests what relationships, themes, or meanings to examine and how findings can be interpreted.
5. Theoretical frameworks rely mainly on established theory; conceptual frameworks map the study’s concepts and relationships.
6. Examples: Social Cognitive Theory, Health Belief Model, Technology Acceptance Model, Social Exchange Theory.
7. Too many theories can create confusion, weak alignment, and contradictory assumptions.
8. False. It should inform the study throughout.

Key Takeaways and Conclusion

Key takeaway 1

A theoretical framework gives the study a scholarly lens and logical structure.

Key takeaway 2

It should align the research problem, questions, methods, analysis, and interpretation.

Key takeaway 3

Strong frameworks are selected, justified, mapped, applied, and critically evaluated.

Conclusion

Theoretical frameworks help researchers move beyond description toward explanation, interpretation, and contribution. When used carefully, theory strengthens research quality and helps readers understand how a study connects to wider academic knowledge.

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